

The perfect finish with CRYOCLEAN® Snow. Environmentally friendly Linde cleaning process helps put a shine on LECHUZA® planters.

CRYOCLEAN® highlights at a glance

- Increased productivity with wide, flat nozzle
- Environmentally sound process
- No need for water or chemical additives
- No limescale residue
- Rapid, high-quality pre-treatment results for premium surface finish

The customer

The Brandstätter Group in Germany has been a leader in plastic injection moulding for more than three decades. Its most famous brand is PLAYMOBIL®. However, the Group also manufactures premium planters and accessories under its LECHUZA® brand. This innovative range of self-watering plant containers is made of high-quality plastic and was launched in 2000. Since then it has become the brand of choice for landscapers, professional designers and plant enthusiasts. Today, LECHUZA products are exported to over 70 countries and demand is continually rising.

The challenge

LECHUZA positions itself as a premium brand for plant pots and accessories in a highly competitive market. It offers an extensive portfolio of high-quality planters featuring high-gloss, matte and wicker-effect finishes. In order to meet the increasing demands of discerning customers in relation to surface finish and protection against ultraviolet light, LECHUZA was looking for a pre-treatment solution to enable a high-quality finish, boost productivity and avoid harmful chemicals.

The solution

LECHUZA looked at a number of conventional methods including power washing and chemical agents such as isopropanol. It also explored Linde's innovative, environmentally friendly CRYOCLEAN® Snow process. CRYOCLEAN Snow uses CO₂ snow particles to clean surfaces, totally eliminating the need for water and chemical additives. The only ingredients are liquid carbon dioxide and compressed air.

After extensive testing and evaluation of Linde's application concept, the customer was delighted with the results and chose Linde as their preferred supplier. The first coating line equipped with CRYOCLEAN Snow technology went on stream in 2006; the second line began in 2007 and the third in 2008. All facilities were fitted with the requisite equipment by Linde.

Benefits

Unlike conventional pre-treatment processes such as power washing or cleaning with volatile organic compounds (VOCs), CRYOCLEAN Snow does not release any chemical solvents and it does not leave any residue. This means that operators do not need to prepare water or work with water driers or manual pre-treating processes. Operators also do not have to worry about limescale problems with this environmentally sound solution.

In addition, the pre-treatment cabinet for Linde's fully automated cleaning process is much more compact than the unit required for wet pre-treatment processes. And it has boosted productivity at LECHUZA. The wide blasting nozzle enables the company to clean several square metres of surface area per minute.



LECHUZA® planter.

Climate mitigation

The increased concentration of carbon dioxide and other greenhouse gases in the atmosphere is known to be one of the causes of global warming. Committed to mitigating the effects of climate change, Linde seeks to minimise its carbon footprint by recycling carbon dioxide instead of generating new streams of this gas. About 80% of the carbon dioxide that Linde supplies to its customers, for example, comes from chemical processes in which carbon dioxide occurs as a by-product – such as ammonia synthesis or ethylene oxide production. Approximately 20% of the CO₂ delivered by Linde originates from natural sources. This means that CRYOCLEAN Snow customers such as LECHUZA are not only making a contribution to environmental protection by eliminating the need for hazardous chemicals, they are also helping to mitigate global warming by recycling CO₂.



Planters treated with CRYOCLEAN Snow enable a high-quality finish.

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